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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Haru Ando

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07/20/2010

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EXAMINER

MUSSELMAN, TIMOTHY A

ART UNIT

PAPER NUMBER

3715

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/728,904	Applicant(s) ANDO ET AL.	
	Examiner TIMOTHY MUSSELMAN	Art Unit 3715	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4,8 and 20-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4,8,20-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

In response to applicant's submission filed on 4/22/2010, claims 4, 8, and 20-25 are pending in this application.

Claim Rejections - 35 USC § 103

The following is a quotation of the relevant portion of 35 U.S.C. 103 that forms the basis for the rejections made in this section of the office action;

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Claims 4, 20-21, 23, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norcott et al. (US 6,775,518) in combination with Knutson (US 7,050,753) and Morton et al. (US 2005/0216443).

Regarding claims 4, 21, and 23, Norcott discloses an information management server, to distribute lecture material to a student terminal networked with said student terminal and an instructor terminal. See col. 4: 26-43 and col. 7: line 1. Norcott further discloses an accumulator section to accumulate electronic data on said lecture contents. See col. 2: 62-65, and note that the 'content media storage' is analogous to an accumulator section. Norcott further discloses a holding section to hold lecture-related information relating to the lecture contents. See col. 2: 62-65, and note that the 'test database' is analogous to a holding section for lecture related information, because the tests are related to the lectures (see col. 3: 19-22).

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Norcott further discloses a send section to send said lecture contents and said lecture-related information to said student terminal. See col. 4: 26-30. Norcott further discloses an analyzer section to analyze electronic data on said lecture contents, and a matcher section to link said lecture-related information with said lecture contents based on said analysis results. See col. 6: 5-10. Norcott further discloses a control section for selecting lecture contents linked to said lecture related information based on a reply to said lecture-related contents sent from said student terminal. See col. 6: 32-47. Norcott further discloses a matching section for matching relevant portions of the lecture content with the lecture related information and supplying this remedial content to the student based on their replies to the lecture related information (i.e. remedial information is supplied based on the students answers to questions). See col. 6: 26-46. Norcott further discloses wherein the matched lecture content can be in the form of digital video or audio (see col. 6: 13-14). Norcott further discloses wherein said send section sends practice problems relating to said lecture contents as said lecture-related information, and said control section selects lecture contents linked with said practice problems based on true-false judgment results of replies to said practice problems sent from said student terminal. See col. 6: 22-46.

Norcott, while disclosing wherein the search for remedial content is based upon missed questions (col. 6: 22-46), does not disclose wherein the remedial content is selected based upon keywords. However, this manner of searching is known in the art of computer based education systems. Consider for example the system of Knutson, wherein it is disclosed in col. 4: 10-30 wherein keywords are used for searching for educational material. It would have been obvious to one of ordinary skill in the art at the time of the invention to include this concept in other systems, including the system of Norcott, in order to automate the search for information and allow for more flexibility.

Norcott is also silent as to how, specifically, the remedial lecture content is selected, and specifically fails to teach of an analyzer for extracting text information and/or drawing information from video information contained in said lecture contents, and for extracting text information from audio or video information contained in said lecture contents, time stamping the extracted information by sentence and by drawing.

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However, Morton discloses a system for extracting searchable information from media files that includes this feature. See paragraphs 0019 and 0059. Note that the searchable index constitutes information *extracted* from the media file. Also note that Morton teaches in paragraph 0028 the concept of time stamping the relevant returned media intervals. This is also clearly illustrated in fig. 7, label 330. Morton further discloses in paragraph 0078 that the intervals can be grouped by specific sentences or visual objects. It is described in paragraphs 0189 and 0190 that the visual objects can be background information in the video scene. The example presented in this citation describes wherein the background information can be information extracted from slides during a lecture, and it is reasonably well known that lecture slides often contain drawings, and in fact, could be interpreted as drawings in and of themselves. Since Norcott discloses the remedial lecture presentations, and Morton discloses searching media files specifically for use with educational systems and the presentation of remedial material (see paragraph 0019), it would have been obvious to one of ordinary skill in the art at the time of the invention to combine these teachings, since doing so would merely be fulfilling the intended use of the invention of Morton by utilizing it with a standard CBT system such as Norcott. Note that in paragraphs 0197 and 0198 Morton describes wherein the search terms are extracted from the audio and video, and the time segments of the spoken sentences and also the video with the relevant terms are collated on a time axis (collated in the sense that overlapping and adjacent intervals are joined).

Regarding claims 20 and 25, Morton describes wherein the search terms are extracted and the sentences with the relevant terms spoken are collated on a time axis with the video segments containing the word visually. See paragraphs 0197 and 0198. The terms are collated in the sense that overlapping and adjacent intervals are joined, and the intervals refer to both the audio and visual recognition of the key term. Note also that this extracted data is searched for the relevant terms (the reason it was extracted in the first place) which are related to the search for remedial information. The search for remedial information and further questions related to the remedial information are disclosed by Norcott in col. 6: 22-46. The combination of Norcott and Morton would be obvious to one of ordinary skill in the art for the reasons described above with regard to claims 4 and 23.

Claims 8, 22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norcott et al. (US 6,775,518) in combination with Knutson (US 7,050,753), Morton et al. (US 2005/0216443), and Remschel (US 6,411,796).

Regarding claims 8, 22, and 24, Norcott/Morton fail to teach of grouping students. However, Remschel discloses a CBT which sorts students into groups to receive information based on success pertaining to previous assignments. See col. 8: 10-17. Note that the students are in class at the same time. The use of this concept in the system of Norcott would merely be an obvious combination of elements known in the art of computer based training systems to one of ordinary skill in the art, because there would be no unexpected results by nature of this combination, as the grouping concept would work identically in the system of Norcott as it does in Remschel.

Response to Arguments

Applicant's arguments dated 4/22/2010 have been fully considered.

Applicant argues with regard to claim 4 that the combination of references Norcott, Morton, and Knutson do not disclose a matcher section to link said lecture related information (i.e. questions) with lecture contents based on analysis results. More specifically, applicant asserts that Norcott does not disclose matching based upon the analysis step. Examiner disagrees. Norcott col. 6: 40-45 discloses *matching* lecture content to remedial material based upon an *analysis* of the questions that the student missed. Thus the questions are *linked* to particular lecture material. This single citation easily meets applicant's argued claim limitations. Although the language is not the same language used by applicant, the function and operation are the same. Knutson is simply relied upon to illustrate that keyword searching of catalogues of educational material is an established manner of searching educational material (col. 4: 10-30). Morton discloses searching educational media presentations for relevant intervals based upon

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keywords (see paragraphs 0019 and 0059). Applicant's contention appears to be with regard to the linking step. However, the linking step is already disclosed by Norcott without ambiguity as described above. The missing element from Norcott is the *manner* of linking (i.e. Norcott does not disclose linking the missed questions to lecture material based upon *keyword relevance of the missed question to the lecture material*). Since Norcott already discloses linking the questions to the lecture content, one of ordinary skill in the art would have been capable of considering established methods of linking content, i.e. the system of Morton. What Morton does not disclose is wherein the link is based on extracted keywords from *missed questions*. However Norcott already discloses the linking of the question and educational material, and keyword searching is established as described by Knutson (col. 4: 10-30). One of ordinary skill in the art would be capable of utilizing such known techniques in conjunction with the question/content linking mechanism already disclosed by Norcott in col. 6: 40-45 in order to allow for more diverse types of lecture content and automated content searching (the very object of the Morton system).

Examiner does not disagree with applicant's assertion that the system of Morton does not extract time information where words frequently appear as required by claim 4. This is the entire purpose of the system of Morton as disclosed repeatedly. See paragraph 0059 and the entire reference. Note that Morton is not relied upon in any way to disclose the *origination* of the keyword, but merely for searching timed media files for intervals containing the keywords.

Applicant's arguments are not persuasive for the reasons described above.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date

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of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIMOTHY MUSSELMAN whose telephone number is (571)272-1814. The examiner can normally be reached on Mon-Thu 6:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan Thai can be reached on (571)272-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. M./
Examiner of Art Unit 3715

/XUAN M. THAI/
Supervisory Patent Examiner, Art Unit 3715